Report 2022
Task 52

Nacelle lidar on MM92 research wind turbine to measure and characterise the inflow. *Photo: Marcel Schedat, Flensburg University of Applied Sciences.*

Large-Scale Deployment of Wind Lidar

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Task 52, also referred to as the 'Wind Lidar' Task, was initiated in May 2022. It serves as the relaunch of Task 32, which supported the successful international collaboration on several wind lidar-related topics and applications over a period of ten years.

Task 52 aims to build on these achievements, notably by leveraging the existing network and community to ensure that wind lidar is applied by the industry, thereby supporting its growth of onshore and offshore wind equally.

To achieve this, the mission of Task 52 participants is to collaborate on research that solidifies wind lidar as the best and preferred wind measurement tool for wind energy applications. This follows a vision in which the future of wind lidar becomes easier to use and will provide advantages and opportunities that will enable the continued deployment of

wind energy. To aid in achieving our mission, we have specified four central themes with dedicated deliverables planned for the 4-year period of the Task. These are 1) Universal inflow characterisation, 2) replacing met masts, 3) connecting wind lidar and (#4) accelerating offshore wind deployment. Within these four themes, seven working groups have been formed so far, one for each deliverable of the work plan, to which all confirmed Task 52 members are invited to contribute and participate.

Through these efforts, we aim to fulfil our overall objective of supporting the large-scale deployment of wind lidar while linking industry and academia to provide the most innovative solutions and application-oriented training for young researchers.

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